

PERCEIVED STRESS AND COPING AS PREDICTORS OF HOPELESSNESS AND PSYCHOLOGICAL DISTRESS DURING THE COVID-19 PANDEMIC: IMPLICATIONS ON SOCIAL POLICIES

Ruhaya Hussin & Rafah Mohamed¹

Abstract

Since the COVID-19 pandemic, hopelessness and psychological distress have been observed globally. The present study investigates the predictive factors of hopelessness and psychological distress among youth, specifically university students. It was hypothesised that perceived stress and coping predict this population's hopelessness and psychological distress. A cross-sectional survey was conducted using purposive sampling via social media among 113 undergraduate students in Malaysian universities who were active and registered for a minimum of one semester in 2020 and without any psychological disorder diagnosis by a clinical psychologist or psychiatrist. The results manifest that perceived stress and coping predict hopelessness and social dysfunction, not anxiety/depression. These findings augment past literature that has asserted that the COVID-19 pandemic has harmed university students' psychological health. The study can assist in developing and improving programmes and interventions consisting of coping and stress management elements to reduce hopelessness and psychological distress among youth, consistent with Malaysia's National Youth Development Policy and Mental Health Policy.

Keywords: COVID-19 pandemic, coping, hopelessness, perceived stress, psychological distress, social policy

Introduction

The COVID-19 has spread globally, pushing most countries to take adequate measures to control the pandemic. The steps taken are lockdowns, bringing an abrupt end to air, sea, and land transportation and travel. It has led to numerous people being stranded in temporary destinations away from their hometowns, while many others are trapped in their own homes (Sundarasan et al., 2020). The hasty

¹ Department of Psychology, Kuliyyah of Islamic Revealed Knowledge and Human Sciences, International Islamic University Malaysia, P.O. Box 10, 50728 Kuala Lumpur, Malaysia.

Corresponding author: ruhaya@iium.edu.my

lockdowns have affected youth, especially the university and college students who face unprecedented interruptions to their traditional face-to-face learning methods. The psychological and academic distress faced, coupled with the vulnerability of tertiary students, are being heightened by the need to adhere to social distancing and Emergency Remote Teaching and Learning (ERTL), which have been imposed as a result of this pandemic (Grubic et al., 2020; Son et al., 2020).

In addition, research has established that anxiety and depression levels among tertiary students have increased amid the current pandemic (Son et al., 2020; Patwary et al., 2020; Elmer et al., 2020; Sundarasan et al., 2020). Son et al. (2020) and Elmer et al. (2020) further contended that powerlessness, loneliness, and uncertainty, are major contributory factors to the rise in depression levels among tertiary students. COVID-19-specific stressors are associated with changes in psychological health. These certainly attest that the pandemic has adversely impacted social networking and the mental health of the students.

Research has revealed that people perceive the pandemic as a stressful experience and that perceived stress is generally higher than before the pandemic (Flesia et al., 2020). *Perceived stress* can be defined as feelings or thoughts that an individual has about how much stress he or she is under at a given point in time (Roddenberry & Renk, 2010). Rossi et al. (2020) postulated that perceived stress associated with the COVID-19 pandemic has increased and is even more apparent and prevalent among young adults. The researchers further argued that psychological consequences, such as the increase in perceived stress, are associated with the overabundance of information and misinformation due to the relentless pandemic. Therefore, this study hopes to extend the knowledge on the psychological impact on youth, specifically the undergraduate students in Malaysia, during the pandemic by examining the predictive factors of hopelessness and psychological distress of this population segment.

The current study can contribute to extending extant knowledge. According to Malaysia's National Youth Development Policy, the government has been planning to provide knowledge-based training programmes, strengthen self-development, and upgrade youth skills. Hence, the findings of this study can highlight the areas or population segments that must be focused on, especially the university students during the COVID-19 pandemic, in efforts to support them to manage their mental health and cope with the current situation.

Few studies have assessed the adverse impacts of the pandemic on the psychological health of tertiary students, an already vulnerable population (Grubic et al., 2020; Son et al., 2020). Therefore, it is crucial to study the predictive factors of hopelessness and psychological distress of the university student population during the pandemic to improve Malaysia's National Mental Health Policy. Furthermore, although community-based treatment is highlighted in the Policy, no specific strategies and guidelines are mentioned (Mubarak, 2003). Hence, the present study can be employed as a reference point for the policy-makers in planning the strategies and guidelines on community-based coping interventions and programmes to strengthen the existing Policy and enhance youth's psychological well-being.



Literature Review

Main concepts

Perceived stress

Mental health issues such as perceived stress, anxiety, and depression, have worsened for students after their studies at the university or college (Saeed et al., 2016). After the onset of the COVID-19 pandemic, studies (i.e., AlAteeq et al., 2020; Son et al., 2020) have found that stress levels, as well as anxiety and depressive symptoms, are increasing among this population, probably due to academic and life difficulties (Kecojevic et al., 2020). In addition, it has also been found that higher perceived stress is associated with increased general psychopathology and burnout (Guruprakash et al., 2018) and hopelessness (Demirtas & Yildiz, 2019). As most extant studies have examined the stress levels among the student population, researchers, AlAteeq et al. (2020) have recommended further studies to investigate the stressors or the impact of perceived stress levels on this population segment.

Coping

In general, coping can be categorised into two: avoidance and approach coping. When facing stressful situations, such as the COVID-19 pandemic, Asians, including those in Malaysia, are more likely to adopt coping avoidance strategies (Kamaludin et al., 2020). It can be due to the stigma associated with the showing of weakness in Asian societies, which would then discourage individuals from seeking support, hence making them more likely to adopt maladaptive coping strategies (Gan et al., 2011), such as avoidance coping.

Furthermore, researchers have contended that university students in Malaysia have been reported to be seeking maladaptive or avoidance coping to deal with pandemic-related anxieties due to the movement restrictions that have been imposed, thus limiting their access to resources for face-to-face social support (Kamaludin et al., 2020). Research has also found that avoidance coping predicts hopelessness, while approach coping is a protective factor of hopelessness (Rodriguez-Naranjo & Cano, 2016). Concerning the pandemic outbreak, avoidance coping has been found to predict high psychological distress among Asians (Wang et al., 2020).

Hopelessness

Hopelessness has been positively associated with depressive symptoms and increasing suicidal ideation (Lamis et al., 2016). Oyekcin et al. (2017) demonstrated that hopelessness significantly predicts suicidal behaviour among Turkish university students. Moreover, physical and mental health improvement is notably associated with hopeful outcomes, such as life satisfaction and happiness, which improve when individuals are physically and mentally healthier (Oyekcin et al., 2017). According to Lew et al. (2019), hopelessness is a significant risk factor for suicidality during the COVID-19 outbreak. The undergraduate students have fewer physical problems, thus making psychological issues such as feeling hopeless a more likely risk factor for suicidal behaviour.



Psychological distress

Vungkhanching et al. (2017) discovered that avoidance coping predicts psychological distress. Likewise, several other researchers have speculated this relationship in their studies on the student population (Thompson et al., 2016; Romero et al., 2015). In their study of student veterans, Romero et al. (2015) examined the contribution of coping and familial social support to anxiety and depressive symptoms. Their results indicate that avoidance coping predicts depressive and anxiety symptoms. Furthermore, Thompson et al. (2016) consistently arrived at similar conclusions in their study with medical students. However, studies which have examined this pattern amid the pandemic are scarce. Liang et al. (2020), who assessed youth's mental health during the COVID-19 pandemic, asserted that negative coping styles affect their mental health. This type of coping enables distress (Rossi et al., 2020).

Pandemic and coping behaviour

The COVID-19 pandemic has contributed to the decline in tertiary students' ability to rely on typical coping strategies due to the lack of social support. Alternative coping behaviours such as denial and disengagement, which have consequently increased, are predictors of depression (Grubic et al., 2020; Son et al., 2020). *Avoidance coping* can be defined as cognitive and behavioural efforts inclined toward denying, minimising, or avoiding dealing directly with stressful situations and has been disclosed to be closely linked to distress and depression (Cronkite & Moos, 1995). On the other hand, approach coping refers to coping strategies that are directly used to confront stressors and their related emotions (Di Nota et al., 2021).

Therefore, assessing the level of avoidance and approach coping methods employed by youth and its prediction on hopelessness and psychological distress may provide a better understanding of how to improve the available support systems. It can also help to alter the focus on raising awareness and how to incorporate positive coping strategies (e.g., approach coping) instead of negative coping strategies (e.g., avoidance coping), as well as ways to equip them with such strategies (Grubic et al., 2020; Son et al., 2020).

The existence of elevated levels of uncertainty about one's future, the future of others, and even the public, has been found to associate with the levels of hopelessness (Afifi et al., 2013). *Hopelessness* can be defined as the feeling that any effort aimed at constructive change in a stressful situation is pointless before it is even attempted (Shea & Hurley, 1964). Moreover, according to Lew et al. (2019), hopelessness is a significant risk factor for suicide among tertiary students, thus, making it imperative to study hopelessness and its predictors such as psychological distress and coping. The support system developers of universities may need to consider perceived stress and cope and its implications on their students' feelings of hopelessness and psychological well-being.

Ideally, all tertiary students should face moderate stress levels with reliable coping strategies, and a hopeful outlook for their future, especially during a pandemic where uncertainties are abundant. Nevertheless, most students have been left feeling isolated with deficient social support to aid in coping with the anxiety and depressive symptoms that do not seem to abate with the COVID-19 pandemic (Elmer et al., 2020). It has been recognized that psychological distress is a significant obstacle to academic success as it affects students' motivation, concentration, and social interactions (Son et al., 2020).

Methodology

The present study

The Cognitive Activation Theory of Stress (CATS) holds that stress response differs depending on the acquired expectancies for the outcomes of stimuli and the available responses (Ursin & Erikson, 2004). According to Ursin and Erikson (2004), stress stimuli evaluated by the brain may result in stress responses that will be fed back to the brain. The brain may alter the stimuli or the perception of the stimuli by acts or expectancies. For instance, under the CATS, perceived stress refers to an acquired expectancy that any response will lead to a negative outcome. Avoidance is considered an overt behaviour of a harmful act (Ursin & Erikson, 2004; 2007). The stress response depends on whether it is a negative or positive act or expectancy that will lead to no health threat or strain. If it is a strain, it will lead to pathology.

Based on the CATS model, the present study conceptualises that the loads or the stimuli are the COVID-19 pandemic-related stressors, such as ERTL and social distancing. The outcomes can be due to either cognitive outcome (perceived stress), behavioural outcome (coping), or expectancy to the stressors. As these are negative acts or expectancies, the result will be a strain or pathology. In the present study, strain is conceptualised as increasing psychological distress and hopelessness among undergraduate students. It is hypothesised that high levels of perceived stress and avoidance coping predict increased hopelessness and psychological distress, whereas high levels of approach coping predict reduced hopelessness and psychological distress.

Study design and participants

A cross-sectional survey design was utilised to collect data from participants using an online platform, i.e., Google Form. A sample of 113 undergraduate students (i.e., 34.51% local and 65.49% international students) currently studying in Malaysian universities was recruited for the present study (see Table 1). All 39 Malaysian students reside in Malaysia, of whom 14 (31.77%) stay on campus, while the remaining 25 (64.1%) stay at home. As for the international students, 41 (55.40%) reside in Malaysia, with 12 (31.77%) staying on campus, while 29 (39.19%) stay off-campus. The remaining 33 (44.6%) reside in their own homes abroad. More international students were recruited than the local students to enable the researchers to examine the differences between the studied variables based on

their residence, including those who had returned to their hometown when the present study was conducted. Participants' ages range from 17 to 41 years. Overall, 26 participants (23%) stay in campus residences, while 54 (47.80%) are in their homes in Malaysia, and 33 (29.20%) are at home in their respective countries.

Participants were recruited through purposive sampling to ensure that data was collected from the specific target population. In addition, various social media platforms frequented by tertiary students, such as Instagram, Facebook, and Twitter, were recruited. All participants in the present study met the inclusion criteria, i.e., they were registered and active undergraduate students studying in a Malaysian university when the study was conducted. The present study excluded those diagnosed with any psychological disorder by a psychiatrist or clinical psychologist as stated in the DSM-5, those who were inactive and unregistered for at least one semester during 2020, and students studying in universities outside of Malaysia.

Table 1: Demographic Characteristics of Participants

		<i>n</i>	<i>%</i>	<i>M and SD</i>
Age	Below 20	9	8.00	<i>M</i> = 22.08; <i>SD</i> = 2.54
	20 - 25	101	89.40	
	25 - 30	2	1.80	
	Above 30	1	0.90	
Residence	Campus Residence	26	23.00	
	Home (Malaysia)	54	47.80	
	Home (Abroad)	33	29.20	
Nationality	Local	39	34.51	
	International	74	65.49	

N = 113

Research instruments/measures

Perceived Stress Scale (PSS-10)

PSS-10 is a 10-item self-report scale that measures the degree to which individuals appraise their situation as stressful (Cohen et al., 1983). The items were scored using a 5-point Likert scale ranging from 0 (Never) to 4 (Very often), of which four items were positively worded. Therefore, the total score was obtained by reverse scoring the four items (4, 5, 7, 8) and then summing up the scores of all items (Cohen et al., 1983).



PSS-10 is an excellent tool to measure university students' perceived stress (Manzar et al., 2019; Örüçü & Demir, 2009). Principal component factor analysis with varimax rotation yielded two components of PSS-10, i.e., the negative and positive perception of stress, consistent with the existing literature (Sandhu et al., 2015). The first factor consisted of six negatively worded items (Items 1, 2, 3, 6, 9, and 10), and the second factor consisted of four positively worded items (Items 4, 5, 7, and 8). In the present study, Cronbach's alpha of the negative perception of stress (positively worded items) is .88, and the positive perception of stress (negatively worded items) is .74.

Brief Approach/Avoidance Coping Questionnaire (BACQ)

BACQ is a 12-item self-report scale that measures two types of coping: approach and avoidance coping (Loton et al., 2016; Polman et al., 2010; Finset et al., 2002). The items were scored using a 5-point Likert scale ranging from 1 (completely disagree) to 5 (completely agree), and the total score was obtained by the sum of all scores (Polman et al., 2010). Principal component factor analysis with varimax rotation suggested two components of BACQ, i.e., approach and avoidance coping, consistent with Finset and colleagues' (2002) suggestion on general approach/avoidance coping dimensions. The first factor (approach coping) consisted of four items (Items 3, 4, 5, and 6), and the second factor (avoidance coping) consisted of six items (Items 7, 8, 9, 10, 11, and 12). As the scree plot suggested, only two factors, Item 1, which loaded under factor 4, and Item 2, which loaded under factor 3, were deleted. The Cronbach's alpha values of both subscales in the present study are acceptable (i.e., approach coping $\alpha = .60$ and avoidance coping $\alpha = .69$).

Beck's Hopelessness Scale (BHS)

BHS is a 20-item self-report scale that measures the negative attitude towards future events (Beck et al., 1974). The scale consists of dichotomous items answered as either true or false (Lamis et al., 2016). The total score was calculated by the sum of item responses, with each favourable response being a 0 and each pessimistic response being a 1 and ranging from 0 to 20, with higher scores being an indicator of higher levels of hopelessness (Crocker et al., 1994). The BHS has an established Cronbach's alpha of .97 (Bouvard et al., 1992). Moreover, BHS is acknowledged as valid for samples of university students (Steed, 2001). Principal component factor analysis with varimax rotation suggested only one factor for hopelessness, consisting of seven negatively worded items (Items 1, 5, 6, 8, 10, 13, and 15) and 12 positively worded items (Items 2, 4, 7, 9, 11, 12, 14, 16, 17, 18, 19, and 20). Item 3 was deleted from the scale as it did not load under factor 1. In the present study, Cronbach's alpha for this scale is .89.

General Health Questionnaire (GHQ-12)

GHQ-12 is a 12-item scale that measures the severity of general mental health over the past few weeks (Goldberg & Williams, 1988). The items were scored using a 4-point Likert scale ranging from 0 (better than usual) to 3 (much less than usual). The negatively worded items were reverse-scored, and then the sum of all scores generated the total score (Sánchez-López & Dresch, 2008). GHQ-12 is a

valid measure employed for university student samples (Niemz et al., 2005). Two factors of GHQ-12 (i.e., social dysfunction and anxiety/depression) were detected on a scree plot when principal component factor analysis with varimax rotation was performed. Social dysfunction, which consisted of Items 1, 3, 4, 7, 8, and 12, yielded a Cronbach's alpha of .83, while anxiety/depression, which consisted of Items 2, 5, 6, 9, 10, and 11, yielded a Cronbach's alpha of .77.

Procedures

Data was collected through an online Google form questionnaire distributed via WhatsApp, Viber, Facebook, and Instagram. The Google form consisted of six sections comprising the information sheet, demographic information, and four measures above. The present study complied with the IIUM Research Ethics Committee's policies, whereby the Ethics Committee at the Department of Psychology reviewed and approved the ethics and application. The information sheet preceded the data collection procedure, allowing participants to read through their rights (for instance, that participation was voluntary and they could withdraw at any time) and gave their consent when answering the questionnaire. The participants were informed that their responses would be strictly confidential and anonymous and the possible harm or benefits of filling this form. All other relevant information about the study itself was also fully disclosed.

Results

Data were analysed using IBM SPSS 21.0 software. All assumptions for regression analysis on normality, outliers, multicollinearity, and homoscedasticity were checked. The Q-Q plots indicated normal distribution for all variables while no outliers were identified as Cook's distance values were below the criterion (Tabachnick & Fidell, 2017). The results also indicated that the variance inflation factor (VIF) values were below the cut-off point of 10, and the tolerance values were above the cut-off point of .10, indicating no multicollinearity issue (Field, 2018). The Durbin-Watson tests used to estimate homoscedasticity indicated that values for all predictors were close to 2, as recommended by Field (2018).

Next, descriptive and correlation analyses were conducted to examine the data distribution and relationships among variables. The Pearson product-moment correlation in Table 2 indicates that negative perception of stress ($r = .44^{**}$, $p < .001$) and avoidance coping ($r = .51$, $p < .001$) are significantly and positively correlated with hopelessness while positive perception of stress ($r = -.45^{**}$) and approach coping ($r = -.43^{**}$, $p < .001$) are significantly and negatively related to hopelessness.

Correlation analysis also found significantly positive correlations between negative perception of stress ($r = .26$, $p < .001$) and avoidance coping ($r = .55$, $p < .001$) and social dysfunction. In contrast, positive perception of stress ($r = -.61$, $p < .001$) and approach coping ($r = -.54^{**}$, $p < .001$) are significantly and negatively related to social dysfunction, indicating that higher levels of positive perception of

stress and approach coping are correlated with reduced social dysfunction among participants. None of the perceived stress and coping variables is significantly correlated with anxiety/depression; hence only hopelessness and social dysfunction were included as outcome variables in further analyses. In addition, gender was controlled in the further analysis because it was significantly correlated with social dysfunction.

A series of hierarchical multiple regression analyses were performed to investigate the direct effects of perceived stress (i.e., positive and negative perceptions) on hopelessness and social dysfunction while controlling for gender. In the first regression analysis, gender was entered in Step 1, followed by the negative perception of stress, positive perception of stress, avoidance coping, and approach coping in Step 2 (see Table 3). It was found that gender does not predict hopelessness ($\beta = -.07, p = .469$). With the addition of all predictors in Step 2, the change in R^2 is significant ($\Delta R^2 = .41$), showing that only avoidance ($\beta = .33, p < .001$) and approach coping ($\beta = -.24, p = .005$) are significant predictors of hopelessness, $F(5, 107) = 14.79, p < .001$.

Table 2: Intercorrelations among Variables

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1 Gender			-						
2 Negative perception of stress	15.82	5.80	.02	-					
3 Positive perception of stress	8.11	3.08	.16	-.41**	-				
4 Avoidance coping	14.59	4.95	-.01	.47**	-.36**	-			
5 Approach coping	20.96	3.18	.16	-.31**	.43**	-.20	-		
6 Hopelessness	5.16	4.36	-.07	.44**	-.45**	.51**	-.43**	-	
7 Social dysfunction	8.27	4.60	.26**	-.61**	.55**	-.54**	.32**	-.49**	-
8 Anxiety/depression	11.27	4.22	.02	-.14	.08	-.14	.09	-.16	.14

N = 113

**Correlation is significant at the .001 level (two-tailed)

The results indicate that higher avoidance coping predicts higher hopelessness, while higher approach coping predicts lower hopelessness.

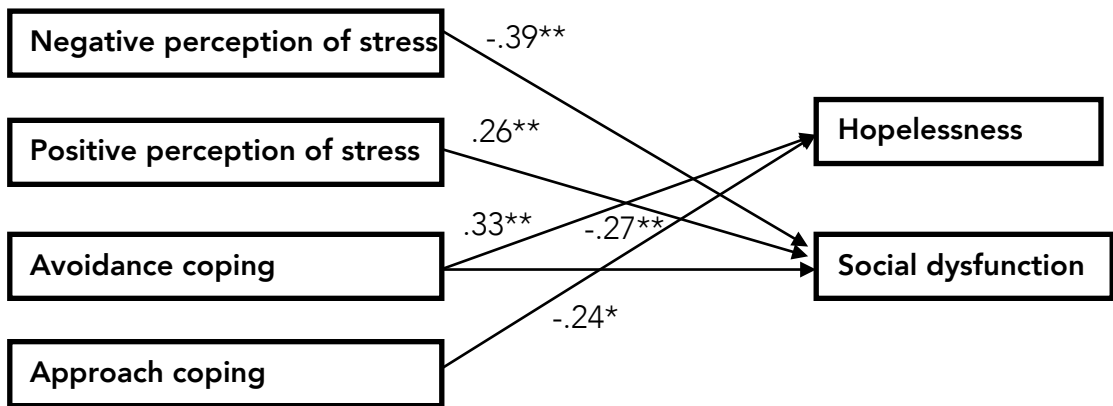
Table 3: Hierarchical Multiple Regression Analyses Predicting Hopelessness and Social Dysfunction

	Hopelessness				Social Dysfunction			
	R^2	ΔR^2	β	p	R^2	ΔR^2	β	p
Step 1	.07	.01			.26	.07		
Gender			-.07	.469			.27	.006
Step 2	.64	.41			.76	.58		
Negative perception of stress			.14	.112			-.39	.001
Positive perception of stress			-.17	.063			.26	.001
Avoidance coping			.33	.001			-.27	.001
Approach coping			-.24	.005			.01	.986

$N = 113$

Another hierarchical multiple regression analysis was conducted to test the predictors of social dysfunction. Gender that was entered in Step 1 accounted for 26% of variance in social dysfunction ($\beta = .26$, $p < .001$). In Step 2, all predictors were entered and accounted for 76% of changes in social dysfunction, $F(5, 107) = 29.47$, $p < .001$. Further investigation revealed that negative perception of stress ($\beta = -.39$, $p < .001$), positive perception of stress ($\beta = .26$, $p = .001$), and avoidance coping ($\beta = -.27$, $p < .001$) significantly predicted social dysfunction. The results indicate that higher levels of the negative perception of stress and avoidance coping predict high levels of social dysfunction. In contrast, positive perceptions of stress predict low levels of social dysfunction (see Figure 1 for the summary of the results).

Interestingly, when analysis of variance (ANOVA) was conducted to investigate the differences between places of residence on all studied variables, it was found that there is a statistically significant difference of places of residence on hopelessness at $p = .027$, $F(2, 110) = 3.75$. In addition, post-hoc comparisons using the Tukey HSD test indicated that the mean score for hopelessness among participants who are staying in their home country ($M = 5.48$, $SD = 3.44$) is significantly lower than those who are staying on campus in Malaysia ($M = 8.38$, $SD = 4.85$).



* $p < .005$, ** $p < .001$

Figure 1: Predictors of hopelessness and social dysfunction

Discussion and Recommendation

The present study mainly investigates the predictors of hopelessness and psychological distress among youth, specifically university students studying in Malaysia. Two significant results are found in the present study, and both support the underpinning theory, CATS. First, both coping strategies, avoidance, and approach significantly predict hopelessness. When both types of coping were regressed on hopelessness, it was found that avoidance coping positively predicts hopelessness, while approach coping negatively predicts hopelessness.

The results support previous research (e.g., Lew et al., 2019; Chen & Wu, 2017; Tsujimoto et al., 2018) that both coping strategies are influential predictors of hopelessness among youth. Hence, in planning for training, leadership, self-development, and skill-based programmes as outlined by Malaysia's National Youth Policy, universities, colleges, organisations, and various agencies should include coping as one of the main items on their agenda. Previous research has shown that a lack of appropriate coping strategies increases hopelessness (Bonanno et al., 2010).

Secondly, positive and negative perceptions of stress and avoidance coping were found to significantly predict social dysfunction, a category of psychological distress. The findings are consistent with previous studies that have found perceived stress and maladaptive coping with being predictors of psychological distress (e.g., Vungkhanchinget al., 2020; Li et al., 2021; Babore et al., 2020; Guruprakash et al., 2018; Liang et al., 2020; Wang et al., 2020). These findings should implore the policymakers to mitigate the adverse effects of stress on students' psychological well-being through clear guidelines and procedures for programmes that can strengthen personal resources, such as coping and stress management strategies.

Hence, relevant authorities such as higher educational institutions, organisations, and agencies that work with youth should be given clear procedures and guidelines on intervention programmes related to mental health. For instance, it is suggested that proper training procedures on psychological interventions and training, such as psychoeducation programmes and cognitive and behavioural-based programmes should be prepared by experts in psychology as guidelines to be used by individuals or organisations working with this population. Previous research has proven that psychoeducation programmes such as multimedia psychoeducational intervention during the COVID-19 pandemic can help to reduce stress levels (Shaygan et al., 2021).

Although it was not hypothesised, the additional finding on the vulnerability of undergraduate students in terms of hopelessness among those who resided on campus makes it clear that the university authorities should pay more attention. Apart from COVID-19 related predominant stressors, such as financial constraints, remote online learning, the uncertainty of academic performance, insecure future jobs, reduced overall mood, decreased wellness behaviour, and a higher level of stress (Sundrasen et al., 2020; Copeland et al., 2021), social isolation among students on campus is also associated with lower mental health, including loneliness, helplessness, and hopelessness (Huang et al., 2020), especially among international students.

Lai and colleagues (2020) further attested the significance of reduced mental health among international students who stay on campus compared to those who had returned to their home countries due to a lack of resilience during the pandemic. Therefore, the present study's findings should entreat the university policymakers to produce mental health literacy guidelines and awareness programmes that include resilience building, coping, peer support, and online psychosocial support, especially for students who reside on campus during the pandemic.

In addition, Moreno and colleagues (2020) argued that according to the COVID-19 pandemic, there should be changes to global mental health care, including:

1. adapting mental health services to the COVID-19 pandemic,
2. ensuring sustainable mental health services,
3. paying attention to new mental illnesses and high-risk cases,
4. developing mental health care delivery system by the experts,
5. continuous mental health assessment,
6. increasing mental health literacy, and
7. emphasising self-care and coping strategies.

These changes can be initiated by considering social policy reforms that include related psychological variables. As highlighted in the Introduction section, Malaysia has initiated such policies (i.e., Malaysia's National Youth Development Policy and the National Mental Health Policy). The reformation of such policies will

benefit the users of mental health services, the community, and the nation. Therefore, it is recommended that the government focus on the importance of mental health and psychological well-being.

Furthermore, individuals, especially youth, should be empowered with essential knowledge and skills in self-care, stress management, and coping strategies to build up their resilience. Therefore, it should be the priority of Malaysia's National Youth Policy and Mental Health Policy. This is a crucial aspect as mental health and psychological well-being are among the core agendas for a sustainable future in Malaysia and globally.

Regardless of the support found for both hypotheses, the results should be interpreted within the context of three limitations. First, as it was a cross-sectional study, causality with COVID-19 cannot be established. The possibility of the variables existing before the onset of the pandemic cannot be dismissed. Therefore, longitudinal or experimental research is recommended to verify the effects. Second, as the measures employed were of a self-report nature, the possibility of over-reporting or under-reporting, as well as self-bias, could have influenced the actual scores of the participants (Son et al., 2020). Therefore, it is recommended that future studies may consider using other assessment methods, peer reports, or colleagues' ratings to minimise such bias. Third, as the participants in this study are mostly youth in universities, generalisation to other population segments is impossible. However, in future studies, the sample can be extended to youth in general to assess a broader range of perceived stress, coping strategies, hopelessness, and psychological distress.

Conclusion

The findings of the present study highlight perceived stress and coping as predictors of hopelessness and psychological distress during the COVID-19 pandemic. For the government, policy-makers, universities, and other agencies to help manage and reduce hopelessness and psychological distress among youth, policies, and guidelines must be drawn up for intervention and programmes that comprise stress management and coping elements. It is concluded that in a non-clinical population of undergraduate students currently studying in Malaysia during the COVID-19 pandemic, approach and avoidance coping predict hopelessness, and perception of stress and avoidance coping predict social dysfunction.

Acknowledgements

The authors thank all participants for their involvement in the present study. The present study was self-funded; hence the authors have no personal interests.

References

- Afifi, W. A., Afifi, T. D., Robbins, S., & Nimah, N. (2013). The relative impacts of uncertainty and mothers' communication on hopelessness among Palestinian refugee youth. *American Journal of Orthopsychiatry*, 83(4), 495-504. <https://doi.org/10.1111/ajop.12051>
- AlAteeq, D. A., Aljhani, S., & AlEesa, D. (2020). Perceived stress among students in virtual classrooms during the COVID-19 outbreak in KSA. *Journal of Taibah University Medical Sciences*, 15(5), 398-403. <https://doi.org/10.1016/j.jtumed.2020.07.004>
- Babore, A., Lombardi, L., Viceconti, M. L., Pignataro, S., Marino, V., Crudele, M., Candelori, C., Bramanti, S. M., & Trumello, C. (2020). Psychological effects of the COVID-2019 pandemic: Perceived stress and coping strategies among healthcare professionals. *Psychiatry Research*, 293, 113366. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7397939/>
- Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The Hopelessness Scale. *Journal of Consulting & Clinical Psychology*, 42(6), 861-865. <https://psycnet.apa.org/doi/10.1037/h0037562>
- Bonanno, G. A., Brewin, C. R., Kaniasty, K., & La Greca, A.M. (2010). Weighing the costs of disaster: Consequences, risks, and resilience in individuals, families, and communities. *Psychological Science in the Public Interest*, 11, 1-49. <https://doi.org/10.1177%2F1529100610387086>
- Bouvard, M., Charles, S., Guérin, J., Aimard, G., & Cottraux, J. (1992). Study of Beck's hopelessness scale. Validation and factor analysis. *L'encephale*, 18(3), 237-240.
- Chen, S. J., & Wu, C. C. (2017). The mediation of coping behaviors in the relationships between parenting stress and depression, hopelessness, and quality of life among mothers of preschool children with autism spectrum disorder. *Journal of Education & Psychology*, 40(4), 63-90. <https://doi.org/10.3966/102498852017124004003>
- Cohen, S., Kamarak, T., and Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health & Social Behavior*, 24, 386-396. <https://doi.org/10.2307/2136404>
- Copeland, W. E., McGinnis, E., Bai, Y., Adams, Z., Nardone, H., Devadanam, V., Rettew, J., & Hudziak, J. J., (2020). Impact of COVID-19 pandemic on college student mental health and wellness. *Journal of the American Academy of Child & Adolescent Psychiatry*, 60(1), 134-141. <https://doi.org/10.1016/j.jaac.2020.08.466>

- Crocker, J., Luhtanen, R., Blaine, B., & Broadnax, S. (1994). Collective self-esteem and psychological well-being among White, Black, and Asian College students. *Personality & Social Psychology Bulletin*, 20(5), 503-513. <https://doi.org/10.1177%2F0146167294205007>
- Cronkite, R. C., & Moos, R. H. (1995). *Life context, coping processes, and depression*. In E. E. Beckham & W. R. Leber (Eds.), *Handbook of Depression* (p. 569-587). Guilford Press.
- Demirtas, A. S., & Yildiz, B. (2019). Hopelessness and perceived stress: the mediating role of cognitive flexibility and intolerance of uncertainty. *Dusunen Adam The Journal of Psychiatry & Neurological Sciences*, 32(3), 259-267. <https://dx.doi.org/10.14744/DAJPNS.2019.00035>
- Di Nota, P. M., Kasurak, E., Bahji, A., Groll, D., & Anderson, G. S. (2021). Coping among public safety personnel: A systematic review and meta-analysis. *Stress & Health*, 1-18. <https://doi.org/10.1002/smi.3039>
- Elmer, T., Mephram, K., & Stadtfeld, C. (2020). Students under lockdown: Comparisons of students' social networks and mental health before and during the COVID-19 crisis in Switzerland. *PLoS ONE*, 15(7), e0236337. <https://doi.org/10.1371/journal.pone.0236337>
- Field, A. (2018). *Discovering Statistics Using IBM SPSS Statistics* (5th Ed.). SAGE Publications.
- Finset, A., Steine, S., Haugli, L., E. Steen, E., & Laerum, E. (2002). The brief approach/avoidance coping questionnaire: Development and validation. *Psychology, Health & Medicine*, 7(1), 75-85. <https://doi.org/10.1080/13548500120101577>
- Flesia, L., Monaro, M., Mazza, C., Fietta, V., Colicino, E., Segatto, B., & Roma, P. (2020). Predicting Perceived Stress related to the Covid-19 Outbreak through Stable Psychological Traits and Machine Learning. *Journal of Clinical Medicine*, 9(10), 3350. <https://doi.org/10.3390/jcm9103350>
- Gan, W. Y., Mohd Nasir, M. T., Zalilah, M. S., & Hazizi, A. S. (2011). Direct and indirect effects of sociocultural influences on disordered eating among Malaysian male and female university students. A mediation analysis of psychological distress. *Appetite*, 56(3), 778-783. <https://doi.org/10.1016/j.appet.2011.03.005>
- Goldberg, D. P., & Blackwell, B. (1970). Psychiatric illness in general practice: A detailed study using a new method of case identification. *British Medical Journal*, 23(1), 439-443. <https://doi.org/10.1136/bmj.2.5707.439>

Grubic, N., Badovinac, S., & Johri, A. M. (2020). Student mental health in the midst of the COVID-19 pandemic: A call for further research and immediate solutions. *International Journal of Social Psychiatry*, 66(5), 517-518. <https://doi.org/10.1177%2F0020764020925108>

Guruprakash, K. V., Mehta, S. G., Atul, B., Prakash, J., Divinakumar, K. J., Khan, S. A., & Patra, P. (2018). A study of the relationship between perceived stress, coping pattern, burnout, and general psychopathology among the postgraduate medical students. *Industrial Psychiatry Journal*, 27(1), 141-146. https://dx.doi.org/10.4103%2Fipj.ipj_20_18

Huang, J. Z., Han, M. F., Luo, T. D., Ren, A. K., & Zhou, X. P. (2020). Mental health survey of 230 medical staff in a tertiary infectious disease hospital for COVID-19. *Chinese Journal of Industrial Hygiene & Occupational Diseases*, 38, 192-195. doi: 10.3760/cma.j.cn121094-20200219-00063

Kamaludin, K., Chinna, K., Sundarasan, S., Khoshaim, H. B., Nurunnabi, M., Baloch, G. M., Sukayt, A., & Hossain., S. F. A. (2020). Coping with COVID-19 and movement control order (MCO): experiences of university students in Malaysia. *Heliyon*, 6(11). <https://doi.org/10.1016/j.heliyon.2020.e05339>

Kecojevic, A., Basch, C. H., Sullivan, M., & Davi, N. C. (2020). The impact of the COVID-19 epidemic on mental health of undergraduate students in New Jersey, cross-sectional study. *PLoS ONE*, 15(9). <https://doi.org/10.1371/journal.pone.0239696>

Lai, A. Y. K., Lee, L., Wang, M. P., Feng, Y., Lai, T. T. K., Ho, L. M., ... & Lam, T. H. (2020). Mental health impacts of the COVID-19 pandemic on international university students, related stressors, and coping strategies. *Frontiers in Psychiatry*, 11, 1-13. <https://doi.org/10.3389/fpsy.2020.584240>

Lamis, D. A., Ballard, E. D., May, A. M., & Dvorak, R. D. (2016). Depressive symptoms and suicidal ideation in college students: the mediating and moderating roles of hopelessness, alcohol problems, and social support. *Journal of Clinical Psychology*, 1-14. <https://doi.org/10.1002/jclp.22295>

Lew, B., Jenny Huen, J., Yu, P., Yuan, L., Wang, D-F., Ping, F., Abu Talib, M., Lester, D., Jia, C-X. (2019). Associations between depression, anxiety, stress, hopelessness, subjective well-being, coping styles and suicide in Chinese university students. *PLoS ONE*, 14(7). <https://doi.org/10.1371/journal.pone.0217372>

Li, Z., Yi, X., Zhong, M., Li, Z., Xiang, W., Wu, S., & Xiong, Z. (2021). Psychological distress, social support, coping style, and perceived stress among medical staff and medical students in the early stages of the COVID-19 epidemic in China. *Frontiers in Psychiatry*, 12, 1-11. <https://doi.org/10.3389/fpsy.2021.664808>

- Liang, L., Ren, H., Cao, R., Hu, Y., Qin, Z., Li, C & Mei, S. (2020). The effect of COVID-19 on youth mental health. *Psychiatric Quarterly*, 91, 841-852. <https://doi.org/10.1007/s11126-020-09744-3>
- Loton, D., Borkoles, E., Lubman, D., & Polman, R. (2016). Video game addiction, engagement and symptoms of stress, depression and anxiety: The mediating role of coping. *International Journal of Mental Health & Addiction* 14(4), 565-578. <https://doi.org/10.1007/s11469-015-9578-6>
- Manzar, M.D., Salahuddin, M., Peter, S., Alghadir, A., Answer, S., Bahammam, A. S., Pandi-Perumal, S. R. (2019). Psychometric properties of the perceived stress scale in Ethiopian university students. *BMC Public Health*, 19(41). 1-8. <https://doi.org/10.1186/s12889-018-6310-z>
- Moreno, C., Wykes, T., Galderisi, S., Nordentoft, M., Crossley, N., Jones, N., ... & Arango, C. (2020). How mental health care should change as a consequence of the COVID-19 pandemic. *The Lancet Psychiatry*, 1-12. [https://doi.org/10.1016/S2215-0366\(20\)30307-2](https://doi.org/10.1016/S2215-0366(20)30307-2)
- Mubarak, A. R. (2003). Malaysia's social policies on mental health: A critical theory. *Journal of Health & Social Policy*, 17(1), 55-72. https://doi.org/10.1300/J045v17n01_04
- Niemz, K., Griffiths, M., & Banyard, P. (2005). Prevalence of Pathological Internet Use among University Students and Correlations with Self-Esteem, the General Health Questionnaire (GHQ), and Disinhibition. *Cyber Psychology & Behaviour*, 8(6), 562-570. <https://doi.org/10.1089/cpb.2005.8.562>
- Örücü, M. Ç., & Demir, A. (2009). Psychometric evaluation of perceived stress scale for Turkish university students. *Stress & Health*, 25(1), 103-106. <https://doi.org/10.1002/smi.1218>
- Oyekcin, D. G., Sahin, E. M., & Aldemir, E. (2017). Mental health, Suicidality and Hopelessness among university students in Turkey. *Asian Journal of Psychiatry*, 29, 185-189. <https://doi.org/10.1016/j.ajp.2017.06.007>
- Patwary, M. M., Bardhan, M., Disha, A. S., Kabir, M., Hossain, M., Alam, M. A., Haque, M., & Billah, S. M. (2020). The impact of COVID-19 pandemic on mental health of university students: A cross-sectional study in Bangladesh. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3682156.
- Polman, R., Borkoles, E., & Nicholls, A. R. (2010). Type D personality, stress, and symptoms of burnout: The influence of avoidance coping and social support. *British Journal of Health Psychology*, 15(3), 68-69. <https://doi.org/10.1348/135910709X479069>

- Roddenberry, A., & Renk, K. (2010). Locus of control and self-efficacy: potential mediators of stress, illness, and utilization of health services in college students. *Child Psychiatry & Human Development, 41*(4), 353-70. <https://doi.org/10.1007/s10578-010-0173-6>
- Rodríguez-Naranjo, C., & Caño, A. (2016). Daily stress and coping styles in adolescent hopelessness depression: Moderating effects of gender. *Personality & Individual Differences, 97*, 109-114. <https://doi.org/10.1016/j.paid.2016.03.027>
- Romero, D. H., Riggs, S. A., & Ruggero, C. (2015). Coping, family social support, and psychological symptoms among student veterans. *Journal of Counseling Psychology, 62*(2), 242-252.
- Rossi, R., Socci, V., Talevi, D., Mensi, S., Niolu, C., Pacitti, F., Di Marco, A., Rossi, A., Siracusano, A., & Di Lorenzo, G. (2020). COVID-19 pandemic and lockdown measures impact on mental health among the general population in Italy. *Frontiers in Psychiatry, 11*, 790. <https://doi.org/10.3389/fpsy.2020.00790>
- Saeed, A. A., Bahnassy, A. A., Al-Hamdan, N. A., Almudhaibery, F. S., & Alyahya, A. Z. (2016). Perceived stress and associated factors among medical students. *Journal of Family & Community Medicine, 23*(3), 166-171. <https://dx.doi.org/10.4103/2F2230-8229.189132>
- Sánchez-López, M. P., & Dresch, V. (2008). The 12-Item General Health Questionnaire (GHQ-12): Reliability, external validity, and factor structure in the Spanish population. *Psicothema, 20*(4), 839-843.
- Sandhu, S. S., Ismail, N. H., & Rampal, K. G. (2015). The malay version of the perceived stress scale (PSS)-10 is a reliable and valid measure for stress among nurses in Malaysia. *The Malaysian journal of medical sciences: Malaysian Journal of Medical Sciences, 22*(6), 26-31.
- Shaygan, M., Yazdani, Z., & Valibeygi, A. (2021). The effect of online multimedia psychoeducational interventions on the resilience and perceived stress of hospitalized patients with COVID-19: a pilot cluster randomized parallel-controlled trial. *BMC Psychiatry, 21*(1), 1-12. <https://doi.org/10.1186/s12888-021-03085-6>
- Shea, F., & Hurley, E. (1964). Hopelessness and helplessness. *Perspectives in Psychiatric Care, 2*(1), 32-38. <https://doi.org/10.1111/j.1744-6163.1964.tb01391.x>
- Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on college students' mental health in the United States: Interview survey study. *Journal of Medical Internet Research, 22*(9), e21279. <https://doi.org/10.2196/21279>



Steed, L. (2001). Further validity and reliability evidence for Beck Hopelessness Scale scores in a nonclinical sample. *Educational & Psychological Measurement*, 61(2), 303-316. <https://doi.org/10.1177%2F00131640121971121>

Sundarasan, S., Chinna, K., Kamaludin, K., Nurunnabi, M., Baloch, G. M., Khoshaim, H. B., Hossain, S. F. A., & Sukayt, A. (2020). Psychological impact of COVID-19 and lockdown among university students in Malaysia: Implications and policy recommendations. *International Journal of Environmental Research & Public Health*, 17(17), 1-13. <https://doi.org/10.3390/ijerph17176206>

Tabachnick, B. G., & Fidell, L. S. (2017). *Using Multivariate Statistics* (6th Ed.). Pearson Education.

Thompson, G., McBride, R. B., Hosford, C. C., & Halaas, G. (2016). Resilience among medical students: The role of coping style and social support. *Teaching & Learning in Medicine*, 28(2), 174-182. <https://doi.org/10.1080/10401334.2016.1146611>

Tsujimoto, E., Tsujii, N., Mikawa, W., Ono, H., & Shirakawa, O. (2018). Discrepancies between self-and observer-rated depression severities in patients with major depressive disorder associated with frequent emotion-oriented coping responses and hopelessness. *Neuropsychiatric Disease & Treatment*, 14, 2331-2336. <https://dx.doi.org/10.2147%2FNDT.S175973>

Ursin, H. & Eriksen, H. R. (2004). The Cognitive Activation Theory of Stress. *Psychoneuroendocrinology*, 29, 567-592. [https://doi.org/10.1016/S0306-4530\(03\)00091-X](https://doi.org/10.1016/S0306-4530(03)00091-X)

Ursin, H., & Erikson, H. R. (2007). Cognitive Activation Theory of Stress, Sensitization, and Common Health Complaints. *Annals of New York Academy of Sciences*, 1113, 304-310. <https://doi.org/10.1196/annals.1391.024>

Vungkhanching, M., Tonsing, J. C., & Tonsing, K. N. (2017). Psychological Distress, Coping and Perceived Social Support in Social Work Students. *The British Journal of Social Work*, 47(7), 1999-2013. <https://doi.org/10.1093/bjsw/bcw145>

Wang, H., Xia, Q., Xiong, Z., Li, Z., Xiang, W., Yuan, Y., Liu, Y., & Li, Z. (2020). The psychological distress and coping styles in the early stages of the 2019 coronavirus disease (COVID-19) epidemic in the general mainland Chinese population: A web-based survey. *PLoS ONE*, 15(5). <https://doi.org/10.1371/journal.pone.0233410>